

PRIOR SCHEDULES.

Had not the plan of "prior schedules" formed so prominent a feature of the census bill which at the last session of Congress failed to become law, the use of such schedules would have been introduced in the present census under the general powers conferred by the act of 1850; but in consideration of the fact that this particular provision had encountered so much opposition, it was thought that it would not be a loyal observance of the intention of Congress to introduce a scheme which had it never been proposed as a legislative provision, might have been introduced unquestioned as a part of the administrative machinery of the census. The experience of the recent enumeration has given fresh illustration of the importance of using this agency in the interest of economy, not to speak of the advantage of securing by means of it a more correct statement in respect to every matter into which the census inquires. The mere saving of time to the assistant marshal would be equivalent to an increase from 10 to 20 per cent. on the rates of compensation authorized by the act of 1850, and to that extent, therefore, would dispense with the necessity now experienced of giving additional compensation. In a few cases, assistant marshals, on their own instance and at their own expense, adopted this scheme in an informal way; and, although schedules thus left at houses without any sanction of law could not be expected to yield as complete results as if made a proper part of the census machinery, yet the success of these efforts was in many cases quite remarkable. To take a single instance: One of the marshals for the city of Covington, Kentucky, reports that he left in advance 3,000 family schedules at the houses of his subdivision, and, upon going around to take them up, found 2,300 satisfactorily filled. The saving of time by this simple means may be judged from the fact that returns of this assistant show that he enumerated a population of nearly 15,000 in 27 working days.

The principal argument for the use of prior schedules, on any right view of the subject, is not, however, found in the saving of time, but in the greater correctness thus given to the enumerations of the census. Under the present system the assistant marshal calls upon families, in the course of his rounds, at hours when the head of the family is generally absent from home. Some, at least, of the inquiries of the census, especially those relating to industry and wealth, are such as but few women are expected to be prepared to answer. The probabilities are, moreover, that in at least one case in six or seven the wife is also absent. The duty of answering inquiries, therefore, often devolves upon servants and children, who are naturally incapable or unprepared to give full and correct answers.

One further remark in regard to prior schedules may not be inappropriate. The main if not the sole objection to their use appears to have arisen from the consideration of the trouble and expense to be involved by the assistant marshal leaving a copy in person with actually every family of his subdivision in advance of the enumeration. In cities and manufacturing towns this might be done without much difficulty, but in rural districts, and especially in the more sparsely settled portions of the country, a preliminary visit of this character would constitute a very serious addition to the duties of the assistant. ✓

The true solution of the difficulty would seem to be found in not requiring the *legal service* of such a paper. By distributing schedules in advance, through personal visitation, in cities and towns, and through the mail, in case of families living at a distance from settlements, four out of five, or even nine out of ten, families could be served in this way without any appreciable addition to the expense; whereas, to require schedules to be distributed in such a way that the assistant marshal should be able to prove in court in every case the service of these papers, would involve an outlay of time and labor which could not be properly compensated without the expenditure of hundreds of thousands of dollars. It would seem that the substantial advantage should be secured without carrying the scheme out to a theoretical completeness. Where schedules should not have been duly received or properly attended to, the assistant marshal would be no worse off with respect to the enumeration of families than before; and even in many of these cases heads of families might casually become acquainted with the character of the inquiries by seeing the schedules in the houses of their neighbors, and be better prepared in consequence to answer promptly and correctly.

THE THIRD SET OF RETURNS.

On the 17th of February, 1870, I had the honor to submit a recommendation that the third set of returns required by the census law of 1850 should be dispensed with, both for the sake of economy and with a view to better protecting the confidential character of the census. This proposition was forwarded to Congress with the recommendation of the Secretary, but the measure failed to become law.

The experiences of the present census have fully justified all the reasons upon which the recommendation was based. The cost of the second copy (making the third set of returns) at the present census, including the cost of the schedules, together with the allowance of 50 per cent. upon this portion of the assistant marshals' compen-

sation, has not amounted to less than \$125,000. The whole expenditure has been worse than useless. It has been positively mischievous. The knowledge on the part of the people that the original sheets of the census were to be deposited among the records of the counties to which they relate, has added almost incalculably to the resistance which the inquiries of the census have encountered. It is useless to attempt to maintain the confidential character of a census under such circumstances. The deposit of the returns at the county seat of every county constitutes a direct invitation to impertinent or malicious examination. No proper purpose can be served by this copy of the census returns. All the use to which it can be put must be improper and mischievous. At every step the work of the assistant marshal has been made more difficult by the fear that the information would be used with a view to taxation, or that matters strictly of family and personal interest would be divulged for impertinent and malicious criticism. No one feature of the present method of enumeration has done so much to excite and justify this fear as the provision of the law which requires that the original returns for each county shall be deposited in the office of the county clerk.

At a time when all services are suffering a relentless retrenchment on the ground of economy, it is certainly unfortunate that so large an additional expense should be involved in connection with the census, the whole effect of which is to render more laborious the duty of enumeration, to retard the completion of the work, and seriously to impair the value of its results.

CHANGES IN SCHEDULES.

At previous enumerations considerable changes have been introduced into the schedules as annexed to and made a part of the act of May 23, 1850.

A memorandum of these changes, whether amounting to the introduction of new subject-matter, or being mere variations in form, will be found below.* Into the schedules for use at the Ninth Census the following changes were introduced:

To Schedule No. 1 two inquiries were added, (Nos. 19 and 20,) in compliance with what was believed to be the requirements of the fourteenth amendment to the Constitution. The *first* was intended to obtain the number of male citizens of the United States, in each State, of twenty-one years and upward; the *second*, to obtain the number of such citizens whose right to vote is denied or abridged on other grounds than rebellion or other crime. No anticipations were entertained that the results of these inquiries would be of value for the purpose for which directly they were introduced into the schedule, but it was believed that, in the absence of any legislative provision for determining these two classes of the population, in order to carry out the requirements of the fourteenth amendment, the Department would not be clear if it neglected to make the attempt, it being the only executive organ through which, without such special provision, the information could be obtained, and the present being the only time for ten years when the attempt could be made.

The census is not the proper agency for such an inquiry. The questions of citizenship and of the denial of suffrage to rightful citizens, are mixed questions of law and fact, which an assistant marshal is not competent to decide. No particular value is attributed to the results of these questions, so far as the original object is concerned, but incidentally, it is believed, information of value has been obtained. The count thus required of the total number of male citizens above twenty-one in each State and in the United States, while it perhaps has not authority enough to be used in reducing the representative rights of a sovereign State, has yet been carefully made, and is believed to be as exact as most statistical results. The information is of a kind never before obtained in the country, and has certainly an important bearing upon political philosophy and political history in the United States.

In column 7, in the inquiry "Profession, occupation, or trade of each person, male or female, over fifteen years of age," the limitation of age was stricken out of the schedules, and the limitation of ten years was intro-

* *Memorandum of differences between the schedules in use at the censuses of 1850 and 1860, and the schedules annexed to the census law of 1850.*

Schedule No. 1.—(Free inhabitants.)—The question "Value of personal estate owned" introduced.

Schedule No. 2.—(Slaves.)—The ninth inquiry of this schedule in the act, "Remarks," was omitted from the schedule of 1850, and became "No. of slave-houses" on the schedule of 1860.

Schedule No. 3.—(Agriculture.)—The question "Other prepared hemp" inserted. This by virtue of twenty-seventh section of act approved May 23, 1850. Question No. 45, "Honey and beeswax," in the law, branched on the schedule of 1860 as questions 45 and 46.

Schedule No. 4.—(Manufactures.)—No change.

Schedule No. 5.—(Social statistics.)—The questions "No. of teachers" and "No. of pupils" introduced; also, "Amount annually realized from endowment." The question "Value of churches" in the law, became "Value of church property" on the schedule. The inquiry "Denomination" introduced. The inquiry of the law "Whole number of paupers supported within the year" was divided on the schedule as "Native" and "Foreign," whereas this distinction in the law only extended to "Whole number on 1st of June." The same of "No. convicted of crime during year." The distinction, twice required in the law, between paupers and criminals, as "white" or "black," was omitted from the schedules.

Schedule No. 6.—(Mortality.)—The inquiry "No. of days ill" introduced on the schedules.

duced into the instructions to assistant marshals. It was believed that this inquiry ought to extend as nearly as possible to the whole body of persons of both sexes and all ages pursuing gainful occupations in the United States.

After the inquiry "Place of birth," (column 10 of the law and of previous schedules,) two columns were added for an affirmative mark against the name of each person whose father or whose mother was of foreign birth. It is a matter of regret that it was not practicable to give space in these columns for the particular State or country of the foreign birth of parents. The importance of the tables which distribute our foreign-born population among the several nations of the Old World have always been fully appreciated by our people; but it would be of even greater value to ascertain the contributions made to our *native* population by each principal country of Europe; to obtain, in addition to the number born in England, in Ireland, in Germany, in Sweden, or in Denmark, the number of those who are Irish, English, Germans, Swedes, or Danes by only one remove.

Inasmuch, however, as the typographical possibilities of a single-paged schedule would not allow of the introduction of so much matter, the inquiries of the census in this direction were limited to obtaining the total number having father or mother of foreign birth. It is believed that no more important addition could be made to the schedule of inhabitants. This part of the work appears to have been, in general, very well done by the assistants, and the results as found in Table IV of the present volume are both instructive and surprising.

Two other changes were introduced experimentally into this schedule.

The inquiry which appears in the census law of 1850, "Married within the year," was altered to read "If married within the year, state the month;" and a column was introduced with the heading, "If born within the year, state the month."

These two changes were introduced for the purpose of making our statistics comparable with those of many European countries, which give the month for the three capital events of life—birth, marriage, and death. Provision had already been made for obtaining the month of death through the mortality schedule.

The first change mentioned has had no valuable result, for the simple reason that the return of marriages on Schedule No. 1 was ludicrously short of the known facts of every community in the land. Such had been the case heretofore in the census; but hopes were entertained that, by strenuous instructions to assistant marshals, this defect might be remedied, and even the additional information desired be secured. The experience of this census, however, as of the censuses of 1850 and 1860, has shown that the statistics of this subject are only to be collected through a permanent registration and under a system of penalties.

The direct result of the effort to obtain the month of birth for all children born within the census year, has been to secure statistics on this subject which are of a high degree of value for nine months of the year, and exhibit with great accuracy the varying influence of the seasons upon human reproduction in each section of the Union.

Of even greater value, perhaps, is the indirect and generally unexpected result of this inquiry, namely, the explanation that has been afforded, through it, of the inadequacy of the return made at all previous censuses, of children under one year of age.

It may be known to many persons besides those commonly interested in such abstruse calculations, that the controversy as to the proportion of our population which is of original native stock, has turned very much on the determination of the number of persons born during a year in the United States, as the same is indicated by the number surviving at the end of the year.

Besides making the almost inconceivable blunder of overlooking, in such calculations, the infants dying during the year of the census, some of our most pretentious writers on the subject of population have based their disparaging conclusions as to the vigor of our pure American stock, in contrast with that of the several foreign elements, upon the statements of previous censuses as to the number "under one year."

It has been manifest, however, to those who took pains to look below the surface, that the number of this class was, for some reason, inadequately represented. Dr. Jarvis, of Dorchester, Massachusetts, a writer of great accuracy on these subjects, has advanced the explanation that infants of such tender age are to a considerable extent overlooked in the enumeration. But most heads of families will agree that "the baby" in the house is generally the last member of the household to be forgotten; and that such omissions are far more likely to occur in respect to children absent at school or in trade.

I have for some time held the opinion that the inadequate representation of persons under one year of age was due to the tendency to speak of infants of between eleven and twelve months, and even between ten and eleven months, as a year old, and that, therefore, the defect complained of did not result from the omission of names from the schedules, but from erroneous classification. The result of the inquiry has been to substantiate this view most strikingly, and, while explaining the inadequacy of the return of children under one year at this and previous censuses, to furnish ample material for correcting and completing the statement.

It is proposed to include the table which presents these results for each State and Territory in the volume

devoted to the vital statistics of the country, and that table has not, therefore, undergone its final revision for publication; but a few instances taken at random will suffice to indicate the general character of the whole. It will be seen at a glance that the respective numbers of births in the several months vary for nine months only so much as should be expected under the influence of physical causes; but that in the tenth month a very perceptible disturbance is introduced, while in the eleventh and twelfth months (counting backward from the date of enumeration) the number of births fall off with extraordinary rapidity, almost to zero.

BIRTH TABLE.

STATES.	1870.					1860.						
	May.	April.	March.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July.	June.
Connecticut	1,380	1,219	1,273	1,067	1,103	1,176	927	1,092	1,053	918	587	203
Maine	1,302	1,392	1,449	1,250	1,162	1,210	1,044	1,113	1,117	1,003	719	283
Massachusetts	3,771	3,430	3,287	3,139	3,117	3,229	2,705	2,899	2,830	2,429	1,584	567
Missouri	5,778	5,538	6,231	6,172	5,879	5,745	4,412	4,400	4,518	3,260	1,873	444
Ohio	7,815	7,590	8,207	7,518	7,370	7,476	6,362	6,903	6,683	5,375	3,298	1,000
Vermont	844	780	771	686	626	659	556	608	628	519	323	128

To resume: The "Illiteracy" column of the schedule of 1850, "Persons over twenty years of age who cannot read or write," branched upon the schedule of 1870 into two columns, "Cannot read" and "Cannot write."

This addition to the statistics of illiteracy is believed to be of capital importance. The reason for such a division of the subject is real and palpable. It is not, however, strictly an addition to the inquiries of the census, inasmuch as to meet the requirements of the schedules of 1850 and 1860 the assistant marshal was, in fact, obliged to ask both questions. The answers were, however, required to be separately recorded upon the schedule of 1870.

It is well known that great numbers of persons, rather than admit their ignorance, will claim to read, who will not pretend that they can write. No matter how limited their acquirements, the assistant marshal will not get them to confess that they cannot read, provided they have any possible ground for claiming such an accomplishment. All, however, who have had to do with soldiers, or with workmen in gangs, know that no such sensitiveness, at least in any such degree, exists in regard to writing. There is much more readiness and frankness in acknowledging a deficiency in this respect.

But if a man cannot write, it is fair to assume that he cannot read well; that is, that he really comes within the illiterate class, whose numbers it is of peculiar importance to ascertain at the present time. The distinction has been fully justified in the result. Taking the whole country together, hundreds of thousands of persons appear in the class "Cannot write," over and above those who confess that they cannot read. This is the true number of the illiterate of the country: the class which it is now necessary to treat, for the simple safety of our political institutions.

The limitation of age, moreover, incorporated in the schedule annexed to the act of 1850, has been modified so as to bring within the scope of this inquiry all persons above ten years of age.

The reason for this enlargement seems to be such as to justify the change. Previous censuses have obtained the number of illiterate over twenty. These are the hopelessly illiterate, of whose enlightenment no reasonable expectation can be entertained. But those at present between the ages of ten and fifteen, and between fifteen and twenty, who cannot read and write, are to constitute the class which in ten years more, but for exertions now to be put forth, will form the hopelessly illiterate of another census. It is clearly as important to determine the numbers of our youth who are growing up in ignorance, and who may yet be brought within the reach of instruction, as to determine the number of those who have passed the period of youth in ignorance, and who will, with few exceptions, remain illiterate through life.

The inquiry of 1850 and 1860, "Whether deaf, dumb, blind, insane, idiotic, pauper, or convict," was modified in the schedules of 1870 by striking out the two latter classes as offensive and superfluous. The number of both these classes is obtained with far more accuracy by inquiries on Schedule No. 5, "Social statistics."

To the "Mortality schedule," (No. 3 of the Eighth Census, No. 2 of the Ninth Census, the "Slave schedule" being omitted,) a column was added for the number of the family in which the death occurred, as the same appeared on Schedule No. 1. This, however, did not constitute one of the inquiries of the census, but was intended to afford a means of easy reference from one schedule to the other, for purposes of verification or of further inquiry, should such become necessary. The inquiry, "Free or slave," of 1850 and 1860 was omitted, as a matter of course, from the schedule of 1870. Two columns for an affirmative mark against the name of each person whose father or whose

mother was of foreign birth were introduced into this schedule, to correspond with the same on Schedule No. 1. The inquiry upon the schedules of 1850 and 1860, "Number of days ill," was omitted, as of no conceivable importance. This inquiry is not contained in the schedule annexed to the law of 1850.

The inquiry upon the Agricultural schedule previously in use, "Acres of unimproved land," was divided on the schedules of 1870 into "Acres of woodland" and "Acres of other unimproved land." A column was added for the inquiry, "Total amount of wages paid during the year, including value of board." The inquiry, "Bushels of wheat raised" in 1850, was divided in 1870 as "Bushels of spring wheat," "Bushels of winter wheat." Under the head of "Dairy products" was added the inquiry, "Amount of milk sold."

Upon the schedules of 1850 and 1860 "Hemp raised" occupied three columns, "Dew-rotted," "Water-rotted," and "Other prepared hemp." As hemp is, speaking generally, prepared in only one way at the present time in the United States, this crop was limited to a single column in the schedules of 1870; and assistant marshals were instructed, if they had occasion to report hemp prepared in other ways, to indicate the distinction by a note. A column for the "Value of forest products, including wood, lumber, staves, poles, &c.," was added to the schedule of 1870. To the inquiry of 1850 and 1860, "Value of animals slaughtered," upon the schedule of 1870 were added the words "or sold for slaughter."

By far the most important addition to this schedule was the inquiry, "Total value of farm productions during the year." The difficulty which statisticians have experienced in getting anything like a correct total valuation of the agricultural production of the country has been the reason for this inquiry. So long as well-informed men can dispute whether the farm production of the country reaches two thousand or four thousand million dollars, it would seem desirable that an effort should be made to introduce somewhat more of certainty into the subject. The country would not be satisfied for a moment if the column "Total production" was stricken from the Manufacturing schedule, and statisticians were left to estimate the aggregate of the manufacturing industry of the country from fragmentary information in regard to the quantities of different articles reported as produced during a single year.

Upon the Manufacturing schedule the inquiry of the law, "Kind of motive power, machinery, structure, or resource," was developed into inquiries occupying four columns of the schedule of 1870, namely:

1st, "Kind of motive power," (steam, water, wind, horse, or hand;) 2d, "If steam or water, number of horsepower;" 3d and 4th, "Name" and "number" of machines used.

This change, however, is a purely formal one, as the instructions of 1860 required all these facts to be obtained, although, as was inevitable from the attempt to compress so much and such diverse material within a single column, in effect none of the information was secured with sufficient distinctness and completeness to allow of its publication, and the whole was therefore lost. The result of the division of these inquiries at the Ninth Census has been to secure full and reliable material, for the first time, for a report of the steam and waterpower of the country employed in manufactures. Except a careful report for the State of Rhode Island, and a report more or less accurate for the city of Philadelphia, I am not aware that any statistics of this kind have ever been prepared in the United States. The information in regard to the machinery used in the cotton, wool, iron, and other important industries, and in regard to the capacity of the grist and flouring establishments of the United States, has also been obtained with fullness and accuracy.

The inquiry of 1850 and 1860, "Average number of hands employed—male, female," was modified in the schedule of 1870 to read "Average number of hands employed—males above sixteen, females above fifteen, children and youth." For the inquiries upon the schedule of 1850 and 1860 in regard to "wages," namely, "Average monthly cost of male labor," "Average monthly cost of female labor," was substituted, on the schedule of 1870, a single inquiry, "Total amount of wages paid during the year."

Inasmuch as the phraseology of this schedule, as annexed to the act of 1850, and as used in the censuses of 1850 and 1860, viz: "Producing *articles* to the value of \$500," was often understood to imply that the inquiry should be limited to establishments producing separate and distinct articles, such, mainly, as could be done up in parcels, sold across a counter, and carried off in the pocket, and as such a limitation would be in the highest degree mischievous and absurd, the word "articles" was stricken from the heading of the schedule of 1870.

The schedule for "Social statistics," as annexed to the act of 1850, contained ten general heads, Valuation, Taxation, Education, Religion, Libraries, Newspapers and Periodicals, Pauperism, Crime, Wages, Seasons and Crops. The last of these was stricken from the schedule of 1870, for the reasons that it has always been valueless in its results, and that the information which it was intended to obtain is now secured through the Department of Agriculture. The place of this inquiry was supplied by an inquiry into the "Public debt" of towns, cities, counties, and States, as the proper complement of the inquiries relating to valuation and taxation, and as being of great importance at the present time to the public credit.

Fewer changes in subject-matter were introduced into this schedule at the present than at previous censuses. The distinction of "Paupers" and of "Criminals" as "Native white," "Native black," which was omitted from the schedules of 1850 and 1860, was restored in 1870, to follow the form of the schedule as annexed to the law. Under the head of "Religion," the inquiry "Number of churches" being ambiguous, two columns were used in 1870, "Number of church organizations," "Number of church edifices." Under the head of "Education" the inquiries "Number of teachers" and "Number of pupils" were subdivided to read "Number of males," "Number of females."

A decided difference of *form*, however, was introduced into the schedule. For example, under the general head of "Education," the schedule of 1850 required to be stated the "Kinds of colleges, academies, or schools," leaving assistant marshals to make a classification of educational institutions for themselves.

An example of the inevitable confusion consequent upon an attempt to collect statistics according to this method will be found both instructive and amusing. From the returns on Schedule No. 5, for the States of Virginia, Vermont, and a portion of Pennsylvania, is gathered at random the following extensive list of specifications:

Academy; classical academy; academy for males; academy for females; academy for males and females; boarding-school; boarding-school for ladies; boys' grammar school; boys' primary school; classical school; college; common school; common school for males; common school for females; common schools mixed; commercial school; commercial and military institute; colored public school; corporation school; collegiate institute; charity school; day-school; district school; elementary school; elementary and classical school; English school; family school; Friends' school; free school; female seminary; female institute; female college; graded school; grammar school; high school; institution of learning; independent school; music school; military institute; normal school; pay school; parochial school; public school; private school; primary school; select school; State school; secondary school; subscription school; seminary; theological seminary; unclassified; ungraded; university.

Under the same system of allowing assistant marshals to furnish their own classification, the following are given as the "Kinds of taxation" in the same States:

Borough; bridges; capitation; corporation; county; county levy; city; district school; education; fees and income; ferries; gas; highway; income; land; licenses; literary fund; militia; office fees; ordinaries; parish; parish levy; personal; property; poor; road; real estate; school; State school; State revenue; State; stores; stallion; slaves; town; village; and water.

If any one will attempt to classify these "kinds of taxation," upon any known or imaginary system, either, first, according to the objects on which the taxes are imposed; or, second, the authority imposing the taxes; or, third, the purposes to which the proceeds are to be applied, he will realize the importance of furnishing assistant marshals with a classification in advance, to which they shall be required to adhere in their returns of such matters.

Indeed, a glance at this list will show the utter impossibility of reducing such specifications to anything like a consistent scheme. The information might just as well not be given at all as be given in this manner.

In view of this palpable difficulty, the schedule of 1870 contained a classification under each of the three general heads of "Schools," "Taxes," and "Libraries," for the government of assistant marshals in their returns.

SPECIAL ADMINISTRATIVE EFFORTS AT THE NINTH CENSUS.

Apart from the rearrangement of the schedules and the adjustment of the stated inquiries to meet new or altered social or economical conditions in the public body, it is only in certain respects that the census, under the limited powers conferred by the act of 1850, even when construed and employed most liberally, can be improved by administration at the Census Office. Whether the enumeration shall omit a larger or a smaller number of inhabitants than at preceding censuses, is determined almost wholly by the changes that may have taken place in the social conditions of the people, and by the accidental character of the appointments to the office of United States marshal, the country over, at the time. If, by reason of improved facilities for travel, and the greater restlessness of our population, an increasing number escape enumeration at each successive census, it is a matter over which the Census Office, as at present constituted, has little control. If, on the other hand, by reason of the low grade of appointments to the offices, both of marshal and of assistant marshal, the work of enumeration should be more negligently performed, for this, again, neither the Department nor the Office should be held responsible, as they have no control over the matter of appointments.

Moreover, many of the inquiries of the census are of a character to require no explanation, and admit of only a categorical answer. It becomes, therefore, merely a question of honesty and ordinary intelligence on the part of individual enumerators whether these parts of the work be properly performed or not.

There are, however, certain points in which the value of the census must depend very greatly upon the instructions issued, and upon the arrangements made in advance of the enumeration. These may be specified as follows:

First.—The return of "Occupations" on Schedule No. 1. Whether the industrial or the social character of a nation be considered, a true return of the occupations of the people constitutes the most important single feature of the census. It would be impossible so thoroughly to gather the productions of industry in all its branches,

even under the most improved provisions of law, as to present a view of the industrial capacity of the country as justly and completely as would be obtained from a perfect representation of the employments of the whole body of inhabitants. Even were provision to be made by law for enumerating the great interests of trade and transportation, in addition to those of agriculture and manufactures, which alone are provided for, there would still remain a vast body of production, in the form of professional and personal services, which the schedules of the census could not pretend to cover, while at the same time no small measure of the industries which were professedly embraced in the enumeration would unavoidably escape observation.

The social value of such statistics is even greater. The habits of a people, their social tastes, and moral standards, would be more truthfully depicted in a complete list of their daily occupations, than ever was done in any book of travels or of history. Next to the actual count of living inhabitants, for the purpose of distributing representation, the most important single inquiry of the census is in regard to the occupations of the people.

It has been common to assume that the difficulties which beset a truthful return of occupations are inherent and ineradicable. I have never seen any reason for accepting such a view. It is not asserted that these difficulties arise from the reluctance or the ignorance of the people. It must be, then, from the unfitness of enumerators generally to report occupations according to any scientific or satisfactory classification, or it is from the want of clear and definite instructions on the subject.

In the present census unusual attention has been bestowed upon this inquiry. The object aimed at was to prevent the use on the returns of those general and unmeaning terms which have hitherto embarrassed the work of compilation, and which will always occur in profusion where special efforts are not directed to the single end of securing correct and intelligible reports of occupations.*

In the census of 1860 the occurrence of these vague and unsatisfactory terms was so frequent that the utmost efforts in compilation could not have succeeded in removing tens of thousands of cases where, from the specification of the occupation, it was impossible to judge to which of the great branches of industry—manufactures, agriculture, mining, commerce, or professional life—the person reported belonged; or to avoid tens of thousands more where, the great branch of industry being determined, it was entirely impossible to say to which of its principal departments he should be assigned.

The result of the efforts made to improve this portion of the returns has been eminently satisfactory, and it is believed that the tables of occupation, when fully prepared, will afford a view of the employments of the people of exceptional interest and value.

Second.—Another point in which the returns of the census may be materially affected by the character of the definitions and instructions issued, and by the urgency with which such instructions are impressed upon the minds of assistant marshals, is in respect to the statement of diseases and other "Causes of death," upon the Mortality

* The following extracts from the "Pamphlet of Instructions" will serve to show more specifically the kind of errors which it was desired to avoid:

OCCUPATION.—The inquiry "Profession, occupation, or trade," is one of the most important questions of this schedule. Make a study of it. Take especial pains to avoid unmeaning terms, or such as are too general to convey a definite idea of the occupation. Call no man a "factory hand" or a "mill operative." State the kind of a mill or factory. The better form of expression would be "works in cotton mill," "works in paper mill," &c.

Do not apply the word "jeweler" to those who make watches, watch chains, or jewelry, in large manufacturing establishments.

Call no man a "commissioner," a "collector," an "agent," an "artist," an "overseer," a "professor," a "treasurer," a "contractor," or a "speculator," without further explanation.

When boys are entered as apprentices, state the trade they are apprenticed to, as, "apprenticed to a carpenter," "apothecary's apprentice."

When clerks are returned, describe them as "clerk in store," "clerk in woolen mill," "railroad clerk," "bank clerk," &c.

Describe no man as a "mechanic" if it is possible to describe him more accurately. * * *

Be very particular to distinguish between farmers and farm laborers. In agricultural regions this should be one of the points to which the assistant marshal should especially direct his attention.

Judges (state whether federal or State, whether probate, police, or otherwise) may be assumed to be lawyers, and that addition, therefore, need not be given, but all other *officials* should have their profession designated, if they have any, as "retired merchant, governor of Massachusetts," "paper manufacturer, representative in legislature." If anything is to be omitted, leave out the office and put in the occupation.

The organization of domestic service has not proceeded so far in this country as to render it worth while to make distinction in the character of work. Report all as "domestic servants."

Cooks, waiters, &c., in hotels and restaurants, will be reported separately from domestic servants.

The term "housekeeper" will be reserved for such persons as receive distinct wages or salary for the service. * * *

You are under no obligation to give any man's occupation just as he expresses it. If he cannot tell intelligibly what he is, find out what he *does*, and characterize his profession accordingly.

The inquiry as to occupation will not be asked in respect to infants or children too young to take any part in production. Neither will the doing of domestic errands or family chores out of school be considered an occupation. "At home" or "attending school" will be the best entry in the majority of cases; but if a boy or girl, whatever the age, is earning money regularly by labor, contributing to the family support or appreciably assisting in mechanical or agricultural industry, the occupation should be stated.

schedule. The difficulties which encumber this subject are far more serious than those which belong to the return of occupations, but, in a degree, they also allow of removal or abatement, by means of greater clearness and positiveness in the matter of instructions, and by the use of auxiliary agencies, such as are usually at the command of assistant marshals. If we examine the tables of mortality at preceding censuses, we find, as in the case of occupations, a vast number of pretended specifications, which are no specifications at all, it being impossible in no small number of cases, after the cause of death is stated, to determine what the man died for or what he died of, the origin, seat, and type of the disease being all equally doubtful. It is, of course, inevitable that there shall be a large number of cases reported where the cause of death cannot be satisfactorily determined, but this is only where the difficulty has resulted from the mysterious nature of the disease, or from the absence of persons sufficiently well informed to characterize it. Such, however, constitute not one-third, possibly not one-fifth, of the cases where the actual returns of the census have in the past been vague or ambiguous. It is not generally because the family are not able to give the information, but it is because the enumerator is not sufficiently intelligent or well-advised to elicit the facts and to express them to the comprehension of others, that so large a proportion of the causes of death, as stated upon the schedules of mortality, are impossible or absurd.

Two methods have been adopted for remedying this defect at the present enumeration. Urgent instructions at length were given to assistant marshals in advance, to report the cause of death as minutely and specifically as possible; and in this connection all erroneous or insufficient denominations, to which a liability had been shown at previous enumerations, were indicated, and assistants warned against their use. At the same time assistant marshals were directed, wherever it should be found practicable, to submit their schedules of mortality to the physician of the neighborhood or village, with a view to having deficiencies supplied and errors corrected. So simple a provision, it was believed, would be sufficient to cure a great part of the defects of the enumeration.

The unknown causes of death returned at the present census aggregate but 17,266, being 3.67 per cent. of the total deaths, not violent, reported. The unknown causes of death returned in 1860 were 36,707, being 9.81 per cent. of the total deaths not violent.

But this comparison does not express the full measure of the improvement in these statistics which it has been found possible to effect by such administrative efforts as have here been indicated. The tables of mortality at the Eighth Census contain many thousands of deaths to which causes are assigned which afford neither a popular nor a scientific explanation of the fact of death. For example, hemorrhage is returned as a cause of death in 1,321 instances. Yet from such a statement it cannot even be determined whether the death was violent or not; nor, if death *not* violent, what was the origin, the seat, or the type of the disease. The death might have been from hemorrhage of the bowels, or of the brain, or of the lungs, or it might have been from a gunshot wound, or through an injury from machinery. The probabilities are that the greater portion of these deaths should have been returned as from consumption, but it is not possible to determine what proportion of the total should have been so returned, much less to distribute such deaths between the two sexes, among the several periods of life, or among the months of the year.

With a similar looseness, 6,234 persons are reported as having died of "infantile diseases." Now, to say that an infant dies of an infantile disease amounts to no more than to say that an adult dies of an adult disease. All such insufficient specifications have been merged in the "unknown" of 1870. For comparison, therefore, the unknown of 1860 should be enlarged by the addition of at least the following classes: "hemorrhage," 1,321; "infantile diseases," 6,234; "inflammation," 1,326; "sudden death," 816; "cold water," 5, making a total "true unknown" for that census of 46,409, being 12.40 per cent. of the total deaths not violent.

REPORT OF THE SUPERINTENDENT OF THE NINTH CENSUS.

xxxv

The following table exhibits the distribution of the unknown causes of death for the two censuses among the States and Territories:

STATES AND TERRITORIES.	1860.									1870.		
	Unknown.	Cold water.	Hemorrhage.	Infantile.	Inflammation.	Sudden death.	True unknown.	Total deaths not violent.	Per cent. of unknown.	Unknown.	Total deaths not violent.	Per cent. of unknown.
Alabama.....	1,008		43	264	24	38	1,977	11,855	16.67	730	10,120	7.21
Arizona.....											192	
Arkansas.....	1,107		20	40	24	16	1,207	8,483	14.22	451	5,850	7.70
California.....	248		24	31	11	10	324	3,243	9.99	243	8,467	2.75
Colorado.....										7	315	0.31
Connecticut.....	295		42	31	19	20	407	5,873	6.93	175	6,478	2.70
Dakota.....	2						2	4	50.00	8	76	10.53
Delaware.....	133	1	4	17	3	1	150	1,189	12.37	78	1,501	5.12
District of Columbia.....	129		13	57	2	0	207	1,250	16.56	24	1,938	1.23
Florida.....	226		12	45	6	4	293	1,630	17.97	35	2,120	1.65
Georgia.....	1,966		38	193	72	38	2,307	11,820	19.51	668	12,754	5.24
Idaho.....										7	38	18.42
Illinois.....	1,566		39	373	63	19	2,060	18,518	11.12	1,184	32,379	3.65
Indiana.....	1,299		39	194	27	19	1,578	14,722	10.71	821	16,985	4.83
Iowa.....	640		13	147	18	7	825	6,942	11.88	442	9,118	4.84
Kansas.....	121		2	36	4	3	166	1,484	11.18	197	4,325	4.55
Kentucky.....	2,240		48	387	23	27	2,734	15,649	17.47	852	13,701	6.21
Louisiana.....	1,092		31	154	39	17	1,333	11,632	11.45	187	13,832	1.35
Maine.....	276		24	44	22	14	380	7,247	5.24	160	7,397	2.16
Maryland.....	956		26	101	8	37	1,128	7,081	15.92	446	9,379	4.75
Massachusetts.....	623		84	620	54	32	1,413	20,393	6.92	760	24,778	3.10
Michigan.....	455		22	58	58	12	605	6,960	8.69	348	10,641	3.27
Minnesota.....	119		6	7	5		137	1,099	13.57	139	3,314	4.19
Mississippi.....	1,481		34	206	33	8	1,762	11,398	15.45	527	8,523	6.18
Missouri.....	1,985	1	40	224	39	17	2,306	16,918	13.63	880	26,890	3.27
Montana.....										6	127	4.72
Nebraska.....	41		2	15	1		59	350	16.85	54	926	5.83
Nevada.....										15	526	2.85
New Hampshire.....	197		14	86	22	10	329	4,312	7.62	101	4,135	2.44
New Jersey.....	373		29	88	35	23	548	7,183	7.61	290	10,136	2.88
New Mexico.....	308		4	13	14	1	340	1,082	31.32	11	1,062	1.03
New York.....	2,534		170	522	289	71	3,586	44,984	7.97	808	66,429	1.21
North Carolina.....	2,082		42	300	27	45	2,496	11,912	20.95	931	19,126	9.19
Ohio.....	1,783	1	83	302	62	53	2,284	23,712	9.63	964	28,311	3.40
Oregon.....	30		2	1	4	3	40	274	14.59	17	507	2.99
Pennsylvania.....	1,815		125	440	125	65	2,570	28,870	8.90	1,209	50,160	2.41
Rhode Island.....	122		16	20	6	6	170	2,341	7.26	52	2,640	1.96
South Carolina.....	1,176		25	174	23	38	1,441	9,113	15.81	291	6,925	3.33
Tennessee.....	2,014		52	206	34	51	2,357	14,349	16.42	782	13,669	5.72
Texas, east of the Colorado River.....	1,212	1	26	115	43	12	1,409	8,697	16.20	467	8,504	*5.40
Texas, west of the Colorado River.....										126	1,956	*6.44
Utah.....	49			57	10		116	320	36.25	21	853	2.46
Vermont.....	163		10	11	5	1	190	3,240	5.86	110	3,410	3.22
Virginia.....	3,667		97	509	33	81	4,387	21,211	20.63	1,124	14,448	†7.77
Washington.....	1						1	41	243	8	184	4.34
West Virginia.....										280	3,838	†7.29
Wisconsin.....	564	1	20	146	34	11	776	6,731	11.52	287	9,449	3.03
Wyoming.....											40	
Total.....	36,707	5	1,321	6,234	1,326	816	46,409	374,022	12.40	17,266	469,523	3.67

* The per cent. of unknown for Texas proper is 5.67.

† The per cent. of unknown for Virginia and West Virginia is 7.68.

Third. Another important point in which the value of the returns of the census will greatly depend upon the character of instructions given, is in respect to the "kinds and quantities," both of materials consumed and of the resulting products, upon the manufacturing schedule. The difficulty is one that ought not to exist, since it might be wholly avoided by the use of schedules special to each important industry of the country. In the absence of any such provision, the returns of manufactures, upon the schedule annexed to the act of 1850, are liable to become so confused, respect to the statement of "kinds and quantities," as to render it practically impossible to tabulate the results. A considerable is this difficulty, that out of more than one hundred and forty thousand establishments of productive industry reported upon this schedule in 1860, from all of which statements were *required* of kinds and quantities,

both of materials and products, it was found possible to tabulate only about five per cent.,* according to kinds and quantities, and of this list scarcely any portion exhibited the information with a satisfactory degree of fullness.

The difficulty of tabulation under such a plan arises generally not from the want of a sufficient number of specifications, but from the fact that the specifications, in regard to each industry, are made by hundreds or thousands of proprietors of establishments, none of whom are advised with what degree of minuteness or according to what classification, it is desired to have the materials and products reported. As a consequence many will be at pains to report with far more particularity and minuteness than is desirable, while others will report with less than is essential.

The reduction of such irregular specifications to anything like a common system is impossible, so that not only is the particular information required lost, but the manufacturers of the country are put to very great trouble and inconvenience for nothing.

The methods adopted at the present census, in dealing with the subject, were as follows: In the first place, somewhat more than one-half the proprietors of productive establishments were by instructions relieved from the trouble of returning "kinds and quantities." All whose materials and products were "of a minor and miscellaneous character," where the statement of kinds and quantities could not possibly be of use, were excused from returning this information. Secondly, by a mechanical adaptation, the schedules of 1850 and 1860, without the addition or alteration of a letter or figure, were made to secure a portion of the advantages in this respect belonging to special schedules. Thirdly, the instructions to assistant marshals contained a distinct classification of the materials and of the articles of production which it was desired to have reported in the case of each important industry. Such a classification, it was believed, would save proprietors of establishments and assistant marshals much delay and vexation in deciding with what degree of fullness, and according to what specification, to report; and would also render such reports of value when made.

The result of these efforts has been to secure so much improvement in this particular, as to insure that from eighty to one hundred thousand manufacturing establishments will be tabulated with all the fullness of information, in respect to materials, machinery, and production, which could be desired. The information thus obtained is not only important in itself, but is, at the present time, exceptionally desirable, on account of the disturbance of values and the exaggeration of prices.

Fourth. Still another noticeable administrative feature of the recent census, has been the appointment of special deputy marshals in a majority of districts for the collection of the "social statistics," so called, upon Schedule No. 5.

The collection of these statistics is, by the law of 1850, made an exception to the rules which govern in respect to the other schedules.

All the materials for Schedules Nos. 1, 2, 3, and 4, must be obtained by the personal inquiry of the assistant marshal at each house, farm, shop, &c., of his subdivision. The social statistics, on the other hand, are of a character to be obtained largely from official documents, from the public reports or manuscript records of schools, colleges, prisons, poor-houses, asylums, &c.

The seventh section of the act of May 23, 1850, therefore provides that marshals may at their discretion appoint "deputies" for the collection of the social statistics, and that such appointments shall not be deemed an interference with the duties of assistant marshals.

Notwithstanding this provision of the law, it does not appear that such deputies were in any case appointed at preceding censuses, except for single cities or counties, the person commissioned to collect the statistics of the entire city or county being commonly one of the regular assistants.

The section authorizing the appointment of special deputies for the collection of social statistics, appears to be one of the best provisions of the act of 1850; and special efforts were made in preparation for the Ninth Census to induce marshals to appoint such deputies in all States which should be found highly organized enough to admit of

*Cotton goods.....	1, 091	Musical instruments.....	223
Woolen goods	1, 260	Coal mining.....	622
Worsted goods.....	3	Iron mining.....	157
Hosiery.....	197	Blooms.....	97
Wool-carding	712	Pig iron	236
Carpeting.....	213	Bar, sheet, and railroad iron	256
Hats and caps.....	622	Wire.....	16
Silk manufactures	139	Car-wheels.....	17
Linen goods.....	10	Locomotive engines	19
Cordage	190	Sewing-machines.....	74
Hemp bagging	34	Steel.....	13
Paper.....	555	Salt.....	399

the collection of their statistics through such central agencies. The attention of marshals was especially invited to the importance of securing for this work men of known interest in and aptitude for such inquiries, in order that the results might be presented in a manner creditable to the several States and cities. It was also announced that, in case it should be desired to have the social statistics of any State which is divided into two or more judicial districts taken as a whole, and the marshals for the several districts of the State should to that end concur in issuing commissions to the same person, such an appointment would be recognized by the Department as in substantial compliance with the law of 1850.

In consequence of these efforts special deputies were appointed in a majority of the States, either for the entire State or for important sections. In several instances gentlemen of national reputation were induced to accept the appointment of deputy marshal, from a scientific interest in the results, or from a wish to see their States properly represented in the census. In some States, however, mainly at the South, where much of the interior organization was overthrown by the war, it was not deemed practicable to collect the social statistics in this way, and the duty was therefore charged, as heretofore, upon the regular assistants.

The result of these special efforts in the direction of the social statistics of the country, has been to secure statements of a high degree of completeness and accuracy from somewhat more than half the States of the Union, in respect to their wealth, debt, and taxation; their public pauperism and crime; their church organizations and edifices; their academies, colleges, and schools; their newspapers and periodicals. For the results in respect to libraries and wages, not much can be said. In the remaining States the statistics of the classes first named have, after the most laborious correspondence, been worked up into something like an approximation to the truth. The total result, in respect to eight of the classes embraced on the "Social statistics" schedule, is to enable the office to prepare tables which, taking the whole country together, are unquestionably well worth publishing, provided they be accompanied by the proper exceptions and explanations in respect to deficiencies known to exist.

This frank admission should not prejudice the publications of the present census in comparison with those of preceding censuses, or with official documents emanating from any other source. These portions of the statistics of the census have never been more completely or correctly taken, and where deficiencies are acknowledged, it is because the information is not to be obtained by agencies at present in existence.

In no part of the census service is the inadequacy of compensation so severely felt as in the collection of the social statistics. The Government pays something like \$24,000 for the work in all the States of the Union, while the information could not be satisfactorily collected as a matter of business for less than \$200,000.

COMPILATION OF RESULTS.

In the compilations of the present census, it has been invariably held to be a desirable thing to retain the forms and molds of preceding census publications, in order to make comparison practicable. The only cases where departure from this rule has been allowed in any particular, are those in which the specifications or classifications of previous publications have been thought to be essentially vicious, and therefore more to be honored in the breach than in the observance. Where inadequacy merely has been complained of, the effort has been made to introduce new divisions or new groupings, while retaining the old so far as to allow comparison to be made with former results, as notably in the tabulation of the ages of the living population.

While preserving the comparative character of those tables which correspond to the several tables published in 1850 and 1860, large additions have been made to the number of tables published, for the purpose of more completely presenting the information obtained in the enumeration; while the tables which correspond in general to those of former publications, have been enlarged at a very considerable expense of clerical labor. I have not felt the least hesitation in undertaking any compilation, no matter how extended, which promised results that could be useful to any considerable class of the community, or which had a clear scientific value. The census of this country is not taken so often, nor is the statistical information at the command of our people so ample, that we can afford to throw away any part of the material for want of a complete compilation. Especially, since it costs so heavily to bring this material into the Census Office, would it be the falsest of all false economy to lose any portion of it which, when tested, is found to be trustworthy, for the sake of effecting a saving in the cost of tabulation. All that could be done to reduce the expense of these additional undertakings in the Census Office, by fixing a high standard of clerical efficiency, and exacting the utmost of daily performance that could justly be required of the clerks of the office, has been done. Whatever, in spite of this, has been added to the cost of the census through this increase in the number and this enlargement of the scope of the tables accompanying, must be justified, if at all, by the value of the statistics in the interest of science, industry, and good legislation.

Ages. The classification of the ages of living inhabitants adopted in the compilations of 1860, was as follows;

Under 1, 1 to 5; 5 to 10; 10 to 15; 15 to 20; 20 to 30; 30 to 40; 40 to 50; 50 to 60; 60 to 70; 70 to 80; 80 to 90; 90 to 100; each year above 100 being specified. The most evident criticisms upon this classification are as follows: The period 1 to 5 is too long, both from the great number to be reported in that class, and from the fact that the conditions of life change to an important degree with each year under 5. A minuter subdivision ought to be made. Especially is this true with a view to computing, for any scientific purpose, the number of survivors from this class at any time during the interval between two censuses. Secondly, decennial periods are too extensive to allow of anything like nicety of calculation. Quinquennial periods have been adopted for the compilations of the present census. Thirdly, it may seem very strange, when it is considered that one of the principal objects of the census from the earliest times, in all countries, has been to ascertain the military strength of the people, that the period at which the military age begins has never thus far been obtained in the United States. It is difficult to conceive of any species of information which can, from a practical point of view, have precedence in a census over the determination of the number of males between 18 and 45. Fourthly, compilations of preceding censuses have totally disregarded another fact of the highest value, namely, the number of males in the country above the age of 21 years. If any information in regard to the number of persons, according to age, might be supposed to be of interest to the political philosopher, it is the number of persons of voting age. Fifthly, there is quite as much reason for obtaining the number of persons who are above 80 *by single years*, as for obtaining the number above 100 by single years. It cannot be questioned that the additional information would be of great use, not merely in calculations purely scientific, but in computing the expectation of life with reference to life annuities and life insurance.

In fact, this whole matter of decennial periods for the tabulation of ages exhibits a singular disregard of the proper objects of statistical inquiry under a government like ours. The decimal system may be a very good one to introduce into coinage and to govern weights and measures, but it means nothing when applied to the important events of human life. Twenty years means nothing more than any other period; but eighteen years, the age at which a man enters the militia of his country; twenty-one years, the age at which a man becomes a voter in every State of the Union; these periods do mean something, and hold important relations to political science.

At the same time, while introducing new specifications of age into the compilation of the present census, for the reasons presented above, care has been taken to keep up the comparative character of the Ninth Census. In accordance with this principle the age of twenty years has been introduced into the tables, not because it is of any importance in itself more than any other single year, but in order to enable comparison to be made between this class at the present and at preceding censuses.

In view of the consideration presented above, the following classification of ages has been adopted in the compilations of the present census: Under 1; 1; 2; 3; 4; 5 to 10; 10 to 15; 15 to 18; 18 to 20; 21; 21 to 25; 25 to 30; 30 to 35; 35 to 40; 40 to 45; 45 to 50; 50 to 55; 55 to 60; 60 to 65; 65 to 70; 70 to 75; 75 to 80; 80; 81; 82; 83; and upward, by single years.

Another most important distinction which has been introduced into the tabulation of results, is the distinction between native and foreign-born in the tables of age and sex. This distinction involves no inconsiderable addition to the work of preparing these tables, but it is exceedingly desirable. From the table of the native population by age and sex, we shall be able to see how the various conditions of life in the United States affect the duration of life to those who are born here and grow up through their childhood under the influence of our soil and climate. From the table of the foreign-born population, we shall see how those who have derived their original constitution from foreign stock, and have grown up generally to manhood under other influences, are affected by coming under the influence of American climate and American habits of life. By merging these two classes, as has heretofore been done, we obtain neither. The foreign-born population will be lost in the greater numbers of the native, while at the same time it will be sufficiently numerous seriously to affect the proportions of the latter, and, perhaps, in certain classes, entirely to reverse results.

REPORT OF THE SUPERINTENDENT OF THE NINTH CENSUS. xxxix

The following table exhibits the classification according to age, sex, and nativity adopted at the present census, as compared with the classification at the Eighth Census:

Treatment of the classification of population by age and sex at the censuses of 1860 and 1870.

STATE OF NEW HAMPSHIRE.

1860.						1870.													
White.		Colored.		Total.	Ages.	Ages.	Total.	NATIVE.						FOREIGN.					
								White.		Colored.		Indian.		White.		Colored.		Indian.	
Male.	Female.	Male.	Female.					Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
3,445	3,233	7	8	6,680	Under 1	Under 1	5,740	2,824	2,789	2	7	...	...	28	30	...	...	...	...
...	...	...	...	...	...	1	5,716	2,802	2,761	5	7	...	...	69	72	...	...	...	...
...	...	...	...	...	...	2	6,194	3,091	2,910	7	...	...	...	82	104	...	...	...	...
...	...	...	...	...	...	3	6,071	2,932	2,938	1	7	...	...	100	93	...	...	...	...
14,502	13,777	21	24	28,324	1 and under 5	4	5,944	2,910	2,776	4	3	...	...	111	140	...	...	...	...
16,405	16,112	25	22	32,564	5 and under 10	5 and under 10	28,209	13,528	13,122	11	23	...	2	719	802	...	...	1	1
16,501	15,595	31	26	32,153	10 and under 15	10 and under 15	31,868	15,650	14,378	32	23	1	...	882	892	2	...	1	1
...	...	...	...	...	...	15 and under 18	18,089	8,578	8,612	23	21	...	1	637	813	1	1	1	1
16,756	17,651	20	23	34,450	15 and under 20	18 and under 20	12,889	5,629	5,780	34	15	...	...	713	717	1	...	...	...
...	...	...	...	...	...	20	6,809	2,655	3,094	15	6	1	...	469	569	...	...	...	...
...	...	...	...	...	...	21 and under 25	22,508	9,157	9,990	40	18	...	...	1,624	1,617	2	...	...	...
27,137	30,287	47	38	57,509	20 and under 30	25 and under 30	24,509	9,519	11,129	32	24	1	1	1,905	1,895	2	1	...	...
...	...	...	...	...	...	30 and under 35	21,492	8,343	9,998	14	20	...	...	1,465	1,649	...	1	2	...
20,414	21,172	32	31	41,649	30 and under 40	35 and under 40	20,633	8,421	9,173	20	15	...	...	1,402	1,601	...	...	...	1
...	...	...	...	...	...	40 and under 45	18,722	7,838	8,265	12	17	1	...	1,304	1,222	3	...	...	...
16,497	17,069	27	20	33,613	40 and under 50	45 and under 50	16,760	7,294	7,559	16	12	...	1	1,000	875	...	1	1	1
...	...	...	...	...	...	50 and under 55	15,771	6,993	7,324	10	10	...	...	788	646	...	...	...	...
13,103	13,834	15	17	26,969	50 and under 60	55 and under 60	12,654	5,799	6,061	8	7	...	1	410	367	...	...	1	...
...	...	...	...	...	...	60 and under 65	11,918	5,452	5,724	6	8	...	...	369	359	...	...	...	...
8,785	9,950	12	16	18,763	60 and under 70	65 and under 70	9,304	4,286	4,665	2	4	...	...	168	178	...	1	...	...
...	...	...	...	...	...	70 and under 75	7,343	3,353	3,659	3	7	...	...	175	145	1	...	...	...
4,625	5,335	10	11	9,981	70 and under 80	75 and under 80	4,663	2,034	2,487	1	1	...	...	86	53	...	...	...	1
...	...	...	...	...	...	80	744	315	393	2	...	...	...	18	15	1	...	...	...
...	...	...	...	...	...	81	467	193	266	...	...	...	...	5	3	...	...	...	...
...	...	...	...	...	...	82	499	212	281	...	...	...	...	6	...	...	...	...	...
...	...	...	...	...	...	83	453	199	245	...	...	...	...	4	5	...	...	...	...
...	...	...	...	...	...	84	399	136	252	1	...	...	...	6	4	...	...	...	...
...	...	...	...	...	...	85	290	113	163	...	2	...	...	5	7	...	...	...	...
...	...	...	...	...	...	86	208	89	116	...	...	...	...	1	2	...	...	...	...
...	...	...	...	...	...	87	174	72	100	...	...	...	...	2	...	...	...	...	...
...	...	...	...	...	...	88	175	54	118	...	...	...	...	2	1	...	...	...	...
...	...	...	...	...	...	89	131	43	87	...	1	...	...	1	...	...	...	...	...
1,265	1,765	4	3	3,037	80 and under 90	90	120	35	74	...	...	...	...	3	7	...	...	...	...
...	...	...	...	...	...	91	43	10	29	...	2	...	...	1	1	...	...	...	...
...	...	...	...	...	...	92	60	23	36	...	...	...	...	...	1	...	...	...	...
...	...	...	...	...	...	93	39	16	21	...	...	...	...	...	2	...	...	...	...
...	...	...	...	...	...	94	19	6	13	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	95	23	8	12	...	...	...	...	2	1	...	...	...	...
...	...	...	...	...	...	96	10	4	5	...	...	...	...	...	1	...	...	...	...
...	...	...	...	...	...	97	10	2	8	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	98	10	1	8	...	...	...	...	...	1	...	...	...	...
...	...	...	...	...	...	99	2	1	1	...	...	...	...	...	...	...	...	...	...
126	237	...	1	364	90 and under 100	100	6	...	4	...	1	...	...	1	...	...	...	...	...
2	2	2	1	7	Above 100	101	1	...	1	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	Unknown	Unknown	11	6	4	...	...	...	...	...	1	...	...	...	...
159,563	166,016	253	241	326,073	...	...	318,300	140,686	147,431	301	261	4	6	14,629	14,951	13	5	7	6

Occupations.—Even more considerable has been the addition made to the tabulation of occupations. Instead of a simple count, as in 1860, the number of persons in each specified occupation will, in the publications of the present census, be distributed duly between the two sexes, among three designated periods of life, and among the principal foreign nationalities represented in our population. In the belief previously expressed in the course of this report, that the tables of occupation are not only of the first importance in the interest of moral and social science, but that they afford the only true basis for calculating the industrial capacity and production of the country, the following form has been prescribed for tabulating the employments of the people:

REPORT OF THE SUPERINTENDENT OF THE NINTH CENSUS.

TABLE OF OCCUPATIONS.

Number.	OCCUPATIONS.	Number.	1870.																
			AGE AND SEX.						NATIVITY.										
			10 to 15.		16 to 59.		60 and over.		United States.	Germany.	Ireland.	England and Wales.	Scotland.	Sweden, Norway, and Denmark.	France.	Other north of Europe.	Other south of Europe.	British America.	Other and unknowl.
			Male.	Female.	Male.	Female.	Male.	Female.											
1,555	Blacksmiths.....	1,665	3	.....	1,490	.....	172	.....	1,463	3	60	11	.....	1	.....	.....	.....	127	.....
7,347	Boot and shoemakers.....	5,412	52	9	4,887	222	241	1	5,204	2	73	13	16	2	.....	.....	.....	91	11
3,370	Carpenters and joiners.....	4,406	39	.....	4,001	.....	366	.....	4,114	2	44	7	25	.....	.....	.....	.....	164	50
641	Clergymen.....	664	.....	.....	569	.....	97	.....	644	2	2	2	1	.....	.....	.....	.....	13	.....
6,487	Domestic servants.....	7,481	27	223	107	6,527	18	569	6,482	10	637	50	10	13	12	.....	.....	267	.....
*	Mill operatives—Cotton.....	12,759	631	526	3,903	7,619	59	21	7,124	43	2,011	524	157	16	35	1	.....	2,552	296
*	Woolen.....	3,824	186	226	1,478	1,903	31	.....	2,490	15	657	227	44	11	.....	1	1	192	186
1,190	Milliners and dressmakers.....	1,570	.....	1	16	1,506	5	42	1,460	8	51	13	2	.....	.....	.....	.....	36	.....
81	Nurses.....	82	.....	.....	.....	69	.....	13	76	.....	3	1	2	.....	.....	.....	.....	.....	.....
2,635	School teachers.....	1,987	.....	5	121	1,852	8	1	1,976	1	2	2	1	.....	.....	.....	1	4	.....
1,316	Tailors and tailoresses.....	888	.....	.....	258	588	22	20	709	17	24	7	5	1	.....	.....	.....	35	.....

* Could not be distinguished on table of occupations.

The figures in the above table are for the State of New Hampshire. The few employments particularized have been taken at random, for the purpose merely of illustrating the form of tabulation adopted. To embody the whole list of occupations specified would have made the table too cumbersome for this place.

Nativities.—The innovation made in the tabulation of nativities consists solely in the distinction, now introduced for the first time, between white and colored in the tables (V to VIII of this present volume) which exhibit the countries of foreign and the States of native birth. The change is so simple as not to require the introduction of a specimen table. The distinction is principally of value as showing the movements of the native colored population.

Illiteracy.—The scope of the statistics of illiteracy, as before explained in remarks upon the changes made in the schedules, has been considerably enlarged by the extension of the inquiry to persons between ten and twenty years of age. The labor of compilation has been still further increased by subdividing each of the headings of the tables of 1860 according to three periods of life. The additional information thus secured was urgently solicited by the Commissioner of Education, and by gentlemen in all sections of the country prominently connected with the cause of public education. The following table exhibits the treatment of illiteracy in the compilations of 1870 as compared with those of 1860.

TABLE OF ILLITERACY.

NEW HAMPSHIRE.

CENSUS OF 1860.							CENSUS OF 1870.																	
CANNOT READ AND WRITE, OVER TWENTY YEARS OF AGE.							Counties.	Cannot read, over ten years of age.	CANNOT WRITE.															
White.		Colored.		Native.	Foreign	Total.			Total.	White.						* Colored.						Native.	Foreign.	
M.	F.	M.	F.							10 to 15.	15 to 20.	20 and over.		10 to 15.	15 to 20.	20 &c.								
												M.	F.			M.	F.	M.	F.	M.	F.			M.	F.
.....	Belknap	179	325	38	28	21	16	102	109	2	.....	1	1	4	3	.....	157	108
.....	Carroll	142	259	36	12	18	6	92	91	.....	.....	1	.....	3	.....	.....	245	14
.....	Cheshire	365	475	16	14	23	17	169	234	.....	.....	1	1	.....	.....	.....	66	409
.....	Coos	372	471	23	15	70	22	208	123	2	1	1	1	2	3	.....	127	344
.....	Grafton	679	902	41	32	81	55	405	280	.....	.....	2	.....	4	2	.....	222	680
.....	Hillsborough	3,012	3,465	112	104	214	306	1,128	1,584	.....	.....	2	.....	9	6	.....	209	3,256
.....	Merrimack	922	1,178	52	47	96	82	354	537	.....	.....	.....	.....	7	3	.....	202	976
.....	Rockingham	658	1,158	54	32	87	45	381	532	.....	2	.....	5	8	12	.....	375	783
.....	Strafford	932	1,255	57	50	78	117	380	564	.....	.....	.....	.....	.....	.....	.....	279	976
.....	Sullivan	357	438	27	34	24	34	142	171	.....	.....	2	.....	1	3	.....	110	328
2,023	2,660	15	19	1,093	3,624	4,717	Total	7,618	9,926	456	377	712	700	3,361	4,225	4	3	10	8	38	32	1,002	7,934	

* Eleven Indians are here, for convenience, reported among the colored; 10 in Coos County, and 1 in Grafton County.

Mortality Statistics.—The grouping of States into districts for the purpose of the Mortality Statistics, adopted in the publication of the Eighth Census, has been abandoned in preparing for the publication of the present census. The statistics will, as at the Seventh Census, be presented by States. This return to a former method does not defeat the possibility of comparison. Any one who desires to obtain the statistics of mortality for the year 1870, according to districts, will find all the material at his hand for the purpose, and may group the same according to his own theories or wishes. But there appears to be grave reason to doubt whether the meteorology of the United States is sufficiently far advanced to enable States to be thus grouped, according to their climatic conditions, with any degree of safety. It is evident that if the States and Territories of the United States are to be classified by districts, according to an assumed unity of vital conditions within each district, it is a matter of absolute necessity that the propriety of the classification shall in every case be beyond question. Otherwise such an arrangement, instead of bringing out the truth, will only serve to conceal it.

It is perfectly conceivable that, by introducing into each group one State only which actually belongs in some other group, the most important characteristics of every State and Territory in the Union, by turns, might be completely hid from view. The value, therefore, of statistics of mortality, where the principle of grouping is adopted, depends upon the absolute correctness of the system. But since there is grave reason to doubt whether the measurement of cold, heat, and moisture by extremes and by averages in the United States has been advanced to such a degree as to allow a true classification of States according to these conditions, it has been thought best to present the material in a form which admits of combinations at pleasure.

I should have held these views with much diffidence had they not been confirmed by correspondence with some of the most eminent writers upon these subjects.*

In determining the classification of diseases that should be adopted in the compilations of the census, and in deciding the numerous questions, both of principle and of detail, which must arise in the progress of such a work, it would be necessary for the Superintendent either hastily to prepare himself as best he could for the service, at the serious risk of committing many errors of judgment, or else to obtain professional assistance. Between the two courses I had no difficulty in deciding in favor of the latter, nor did it seem any more a matter of doubt that it was preferable to have the scientific control of the work assumed by some recognized official authority, if practicable, rather than to have it given into private hands. I therefore took the liberty of addressing Major General Joseph K. Barnes, Surgeon General United States Army, with the request that, while the entire clerical labor should be performed in the Census Office, the determination of scientific questions arising in the course of compilation and publication might be assumed by his department. I have to acknowledge the cordial co-operation of General Barnes, and of the accomplished officers of the medical staff, Brevet Lieutenant Colonels J. J. Woodward and J. S. Billings, with whom, as representing General Barnes in this matter, I have had constant communication upon subjects of the character indicated occurring in the course of compilation. Colonel Woodward's letter, prefixed to the Tables of Mortality, states with clearness all the decisions successively reached during the progress of this work, and explains forcibly and succinctly the reasons which controlled in such decisions. The Mortality Statistics of the present census are submitted with full confidence that the medical profession, the life-insurance interest, and the country generally, will approve them, making such allowances as are just for necessary imperfections under the present system of enumeration.

In compiling the Statistics of Mortality, the same classification of ages, up to the limit of eighty years, was adopted as in the statistics of the living population. Reference to the specimen table of Age and Sex will show the extent of this change. The distinction of Native and Foreign, however, was not carried through the tabulation of Ages from the Mortality Schedules, but has been made in another connection hereafter to be mentioned.

The Mortality Statistics of the Eighth Census were obtained by tabulating the deaths reported upon a single sheet, to give the age, the sex, and the month of death. In addition to this, a second and a third tabulation have been carried on for the Ninth Census, with a view to exhibit the number of deaths from each specified cause, by

* I am at liberty to make the following extract from a letter of J. W. Draper, LL. D., author of "The Intellectual Development of Europe," "The Future Civil Policy of the United States," etc.

"I have frequently had occasion to reflect on the subject to which you refer—the sectional grouping of the States adopted in the census as respects mortality statistics.

"As they stand now, eight of the districts are said to represent the climate characteristics of the country. Such an assertion, however, cannot be made of them with anything like scientific accuracy. This grouping accords neither with the annual isothermals, nor with those of summer or winter. The ninth district is avowedly an exceptional case.

"Considering how imperfectly the meteorology of the continent is at present understood, any system of grouping dependent on it must be liable to fallacy. In ten years more, perhaps, such an attempt may possibly be executed, but for the present I agree fully with you, that it is best to abstain from the employment of such a device, notwithstanding the desirability of retaining the forms and molds of previous censuses. Compactness, or space saved in the work, is not to be considered for a moment when at the risk of conveying false information.

"My advice is, therefore, to abandon the present fictitious grouping."

Occupations, by Nationality, and by Color. The reason for undertaking this additional work has been that the relations of occupation, of nationality, and of race (so far as the same is indicated by color) to life and health are believed to be quite as important as those of the seasons of the year. The publications of the Seventh Census (1850) presented the Statistics of Mortality tabulated with respect to occupations; but the work does not seem to have been undertaken at the Eighth Census.

The results of such tabulations are shown by the specimen tables following. These tables are only extended vertically and horizontally far enough to indicate the scope of the additional statistics secured.

DEATHS FROM EACH CAUSE, WITH DISTINCTION OF CERTAIN SPECIFIED OCCUPATIONS.

OCCUPATIONS.	CAUSE OF DEATH.																	
	Aggregate.	Unknown causes.	I.—GENERAL DISEASES.		II.—LOCAL DISEASES.								III.—Conditions not necessarily associated with general or local diseases.	IV.—Poisons.	V.—Parasites.	VI.—Malformations.	VII.—Accidents and injuries.	
			General diseases—A.	General diseases—B.	Diseases of the nervous system.	Diseases of the circulatory system.	Diseases of the respiratory system.	Diseases of the digestive system.	Diseases of the urinary system and male organs of generation.	Diseases of the female organs of generation.	Affections connected with pregnancy.	Diseases of the organs of locomotion.						Diseases of the integumentary system.
UNITED STATES.																		
Total deaths	492263	17266	94832	93852	60455	17034	63971	73999	4744	1318	4810	2157	2778	28493	2351	1069	364	2270
Total of specified occupations	88410	1278	11652	27101	8439	4964	12822	8089	2098	52	208	408	242	2820	742	12	.....	748
Agriculturists	51223	876	7415	13978	4899	2780	8750	4771	1208	43	182	259	147	1778	253	9	.....	375
Clergymen	629	10	60	182	77	54	84	76	32	.....	.....	3	1	39	2	.....	.....	9
Laborers	13339	201	1720	4134	1045	661	1579	1216	246	4	14	52	29	417	196	3	.....	1842
Lawyers	595	7	55	179	93	45	58	61	19	.....	.....	.....	3	19	13	.....	.....	41
Merchants and clerks	6736	45	642	2573	807	503	650	607	200	.....	.....	29	17	138	100	.....	.....	450
Mechanics and factory operatives	3504	24	496	1395	286	186	302	248	66	1	10	12	9	84	38	.....	.....	317
Professions, all other	10339	96	1044	3866	996	608	1172	926	279	.....	.....	47	30	295	118	.....	.....	882
Physicians	947	15	76	268	143	73	130	105	37	.....	.....	4	1	31	18	.....	.....	46
Teachers	1078	4	144	526	93	54	97	79	11	4	2	2	5	19	4	.....	.....	31
ALABAMA.																		
Total deaths	10771	730	2084	1289	1180	341	2055	1399	76	60	173	24	179	395	40	86	9	651
Total of specified occupations	2757	98	471	489	263	132	659	233	50	9	44	6	4	58	21	.....	.....	220

DEATHS FROM EACH SPECIFIED DISEASE AND CLASS OF DISEASES, WITH DISTINCTIONS OF RACE AND NATIONALITY.

CAUSE OF DEATH.	Aggregate.	Unknown.	Total.	White.	Colored.	Chinese.	Indian.	Total.	Germany.	Sweden, Norway, and Denmark.	Ireland.	England and Wales.	Scotland.	France.	Other north of Europe.	Italy.	Other south of Europe.	China and Japan.	All other.
THE UNITED STATES.																			
Grand total	492,263	1,570	424,730	356,771	67,461	34	464	63,963	18,626	2,224	27,053	7,159	1,763	1,631	934	219	931	436	4,987
Unknown causes	17,266	145	16,146	12,201	3,922	5	18	975	265	63	338	90	16	21	27	2	9	67	77
General diseases—A	94,832	176	86,388	73,047	13,170	1	170	8,268	2,718	645	2,327	835	182	191	152	31	128	40	1,019
Small-pox	4,507	39	3,878	2,760	1,031		87	590	260	15	120	21	2	14	7	4	3	7	137
Measles	9,237	10	8,839	6,770	2,059		10	388	93	99	68	48	15	3	10	4	4		44
Scarlet fever	20,320	9	19,399	19,099	289		11	912	245	70	173	180	28	8	30	1	15	3	159
Typhus fever	1,770	27	1,305	1,070	233		2	438	144	20	165	38	8	9	9	1	5	3	36

(The same for each State and Territory.)

DEATHS, WITH DISTINCTION OF RACE AND AGE AND SEX.

UNITED STATES.	MALE.																	
	Total.	Unknown.	Under 1.	1.	2.	3.	4.	Total under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.
Total.....	260,673	688	60,876	23,075	12,577	7,636	5,341	109,505	13,714	8,186	9,521	13,539	10,736	9,456	10,205	.....	.....	.....
White.....	225,818	603	52,402	19,771	10,673	6,475	4,608	93,928	11,566	6,641	7,762	10,354	9,218	8,236	9,079	.....	.....	.....
Colored.....	34,241	76	8,428	3,285	1,891	1,154	725	15,483	2,129	1,527	1,729	2,118	1,432	1,132	1,071	.....	.....	.....
Chinese.....	357	7	19	1	.....	.....	1	21	3	2	5	48	70	72	48	.....	.....	.....
Indian.....	227	2	27	18	14	7	7	73	16	16	25	19	16	16	7	.....	.....	.....

(This form and corresponding one for females constitute the table for each State and Territory.)

PUBLICATION OF RESULTS.

The results of the Ninth Census will, under authority of the joint resolution of April 13, 1871, be published in three quarto volumes. The number of volumes thus authorized corresponds to the most obvious division of the statistics of the census, viz: I. Population; II. Vital Statistics; III. Industry.

Into the first would naturally fall such of the so-called social statistics of the census as bear most directly upon the moral, social, and intellectual condition of the people; the statistics of churches, libraries, schools, newspapers, pauperism, and crime. The second would embrace the statistics (Schedules Nos. 3 and 4) of agriculture and manufactures, (the third grand division of industry, viz, commerce, not being recognized in the census;) the tables of occupations, derived from Schedule No. 1, and certain of the social statistics, (Schedule No. 5,) viz, valuation, taxation, and indebtedness, with whatever may be published on the subject of wages. The third would embrace the tables of mortality; the statistics of the blind, deaf and dumb, insane, and idiotic; the birth-tables, and whatever of value, if anything, can be obtained from the schedules in respect to the month of marriage.

There remains but one class of tables to be assigned, viz, the tables of age and sex. In the publications of the Eighth Census, these tables appeared in the population volume. They have, however, an even more obvious connection with the vital statistics of the country. In fact, the tables of age and sex have a double relation. It is proposed, therefore, to include the extended tables of age and sex in the volume which contains the statistics of births and deaths; while the population volume will contain selected tables of age and sex, showing (1) the total number of persons of each sex, (2) the number of each sex of school age, (3) the number of males of military age, (4) the number of males of voting age.

Economy of space.—Although the tabulation of results carried on at the present census has been so much more extensive than heretofore, the aggregate bulk of the several volumes will be little more than two-thirds that of the four volumes of 1860. The publications of the Eighth Census aggregated 2,875 pages. The three quarto volumes of 1870 will fall short of 2,000 pages. This saving in space, notwithstanding the largely increased amount of statistical matter to be provided for, will be mainly effected, first, by dispensing with everything in the nature of literary, historical, or economical disquisition; secondly, by printing in double or treble measure tables which heretofore have been printed in single measure; third, by publishing the living population according to the extended classification of age, by totals of States instead of by totals of counties. The reason for the latter change is that, while it is believed that the minuter distinctions of age are of the greatest value for the country as a whole, and even by entire States, it is not believed to be of importance that these distinctions should be carried out in respect to the population of each of the twenty-two hundred counties of the Union. The results of the compilation by counties will, however, be preserved at the Census Office for reference, should there ever be occasion to consult them. Those distinctions of age which are of importance as applied to smaller civil divisions, (the school, military, and voting ages,) will, as before stated, be given by counties and also by cities and towns, but at scarcely one-tenth the cost of space required by the extended classification of age and sex.

The saving on account of each of the two former changes amounts to several hundred pages. A portion of the space thus economized has been used for the new tables, now first appearing, and the volumes have at the same time been greatly reduced, as indicated.

Condensed and selected tables.—Another noticeable feature of the present work consists in the use of tables containing condensed or selected results, where reasonable limits of space will not allow of the publication of the full details.

Preservation of intermediate results.—In the course of compilation at the Census Office, however, a vast amount of information will still be obtained, as a means to more general results, which no reasonable limits of space would allow to be published, and which may yet be of local interest and well worthy of preservation. For example, referring still again to the statistics of nativities, it would be altogether impracticable to publish the results, even in the most condensed form, by towns and villages; and yet it is often a matter of considerable present interest and importance to be able to determine the constituent elements of their population, while for the purposes of town or county histories, twenty or fifty years later, no class of information would be more highly prized. So far as practicable, therefore, a complete record has been kept of all intermediate results reached in the compilations of the present census.

One typographical feature of the present publication may be alluded to in passing.

As a rule, in all tables extended vertically and horizontally, the totals are placed at the top and at the left, instead of at the bottom and at the right, as usual, while of successive periods named, the nearer and not the more remote in time is placed at the left. The advantage of this deviation from the customs of American statistical publications it is believed will become apparent on the first glance at the tables which follow. No one who has had frequent occasion to follow a line of figures across a page, or two parallel pages, to find the total at the opposite end, at the imminent peril every instant of losing the line, and with a feeling of doubt at the last whether he has actually kept it after all, but will appreciate the advantage of having the totals brought up, as in the present publication, to the left hand, where they stand immediately against their respective titles. For somewhat the same reason, the totals of vertical columns are carried up to the top; and of several successive periods, placed longitudinally, the nearest in time is brought to the left.

REPUBLICATION OF PREVIOUS RESULTS.

Comparisons with the results of previous censuses have been very extensively introduced into certain portions of the publications of the present census. Tables I and II of the population volume will be found to contain the totals of population, with distinction of color, for each of the nine censuses now complete.

A sufficient reason, it is believed, in addition to the acknowledged convenience and instructiveness of such comparative statistics, for so extensive a republication of previously ascertained results, has been found in the increasing scarcity of the published volumes of the earlier censuses. The first four—those of 1790, 1800, 1810, and 1820—are indeed almost wholly inaccessible, even to the majority of scholars and statesmen. But few, even of the larger libraries of the country, contain these publications. The library of Harvard College and the library of the Boston Athenæum contain copies of the official censuses of those years. The public library of Boston possesses only forty pages of the census volume of 1820, and nothing of those of 1790, 1800, and 1810. The public library of Philadelphia possesses the censuses of 1790 and 1820, and wants those of 1800 and 1810. The Astor and Mercantile libraries of New York contain none of the publications of the census from 1790 to 1820.

The Census Office itself wants the census of 1790; and in order to complete the statistics here presented, the Library of Congress, which contains a full collection, has been consulted, as well as the original manuscript returns deposited in this office.

So strongly was the scarcity of these early censuses felt, even at that date, that Congress, by the thirteenth section of the act approved March 23, 1830, directed the republication of the results of the first four censuses, in connection with the Fifth Census; but so hastily and heedlessly was this work performed, that it must be regarded as absolutely valueless. Many pages of that republication would, by merely noting the necessary corrections, be almost as much disfigured as the worst proof of statistical matter ever seen in a printing-house.

A specimen with corrections indicated, is given below :

FIRST TWENTY-FIVE COUNTIES OF VIRGINIA, CENSUS OF 1800, AS REPUBLISHED.

COUNTIES.	FREE WHITE MALES.					FREE WHITE FEMALES.					All other free persons, except Indians not taxed.	Slaves.	Total number.
	Under 10 years of age.	Of 10 years and under 16.	Of 16 and under 20, including heads of families.	Of 20 and under 45, including heads of families.	Of 45 and upwards, including heads of families.	Under 10 years of age.	Of 10 years and under 16.	Of 16 and under 20, including heads of families.	Of 20 and under 45, including heads of families.	Of 45 and upwards, including heads of families.			
Accomack.....	1,462	797	947	966	408	1,483	756	1,117	1,132	595	1,541	4,429	15,693
Albemarle.....	1,669	721	863	821	547	1,590	657	859	644	425	207	7,436	16,439
Amelia.....	480	184	306	308	170	415	190	300	272	164	58	6,585	9,432
Amherst.....	1,723	689	846	989	525	1,603	614	897	(a) 858	467	134	7,462	(b) 16,897
Augusta.....	1,708	696	938	934	736	(c) 1,224	685	913	867	570	95	1,946	(d) 11,312
Bath.....	1,001	492	445	365	233	925	414	440	312	203	17	661	5,508
Berkeley.....	(e) 2,851	1,378	1,712	1,621	1,214	3,117	1,274	1,697	1,495	973	203	3,971	(f) 21,506
Bedford.....	1,889	819	858	873	611	1,796	758	804	819	539	202	4,062	(g) 14,115
Botetourt.....	1,628	678	787	845	549	1,565	619	845	816	441	135	1,519	10,427
Brunswick.....	1,157	518	737	670	361	939	548	698	658	361	270	9,422	(r) 16,309
Buckingham.....	1,255	544	664	622	(h) 400	1,155	505	702	577	390	229	6,336	(s) 13,409
Campbell.....	1,019	472	582	604	343	1,002	405	618	538	310	302	3,671	(t) 10,066
Caroline.....	1,148	457	545	648	356	1,068	497	737	629	407	365	10,581	(j) 17,238
Chesterfield.....	1,028	471	612	624	363	976	(k) 570	627	685	361	319	7,852	(l) 14,188
Culpeper.....	1,878	806	938	1,011	708	1,768	726	1,041	956	647	273	7,348	18,106
Charlotte.....	1,005	382	562	569	324	918	413	556	480	297	123	6,283	(m) 7,912
Charles City.....	333	142	167	206	116	291	160	182	245	112	398	3,013	5,365
Cumberland.....	700	273	434	397	218	668	302	369	355	229	183	5,711	(n) 9,857
Dinwiddie (v).....	816	360	516	458	302	712	339	513	439	286	246	6,866	(i) 11,853
Essex.....	573	241	326	360	214	474	250	307	381	252	276	5,767	9,508
Fairfax.....	1,230	694	589	668	475	1,172	580	606	635	326	204	6,078	13,317
Fauquier.....	2,190	957	1,127	1,087	815	2,083	915	1,335	1,135	800	131	8,754	21,329
Fluvanna.....	464	211	227	258	181	442	221	278	217	160	44	1,920	(o) 5,122
Franklin.....	1,540	668	700	715	405	1,436	557	713	599	368	27	1,574	9,304
Frederick.....	3,307	1,628	1,697	1,608	1,412	3,183	1,476	1,772	1,638	(p) 1,107	453	5,663	(q) 24,94

(a) 852.
(b) 16,801.
(c) 1,624.

(d) 11,712.
(e) 3,351.
(f) 22,006.

(g) 14,125.
(h) 410.
(i) 9,866.

(j) 17,438.
(k) 510.
(l) 14,488.

(m) 11,912.
(n) 9,839.
(o) 4,623.

(p) 907.
(q) 24,744.
(r) 16,339.

(s) 13,889.
(t) 15,374.

(v) This line of figures does not express Dinwiddie County. Add the corresponding line of Petersburg and each item will be changed and the total of the county will be as by foot-note (t.)

In consideration of the above facts it has been thought desirable that the reports of the present census should present such a view of the results of preceding enumerations as is to be found in the accompanying tables.

In connection with this republication, the totals of population, heretofore published, have been carefully compared with the separate items, and with the original manuscript returns on deposit in the Census Office.

This comparison has resulted in the correction of county aggregates, in a very considerable number of cases, and of county totals by classes, (white, free colored, slave, Indian, &c.,) to a still greater extent. These errors, however, frequently balance each other and are lost in the aggregates of the States, so that the only cases in which the State aggregates have been corrected by the comparison, are as follows: Georgia, Kentucky, and New York 1800; Virginia, 1810; Arkansas, Maryland, North Carolina, Tennessee, and Virginia, 1820; Virginia, 1830.*

In addition to the above, there is another large class of errors of a clerical or typographical character which

* The table of *Arkansas* corrects the official census of 1820 by increasing whites 27.

The table of *Georgia* corrects the official census of 1800 by diminishing free colored 900, and slaves 293; also corrects the schedule of the census of 1830, and the retrospect tables in the compendium of 1840 and in the censuses of 1850 and 1860, by increasing whites 583, slaves 2, and the aggregate 585.

The table of *Kentucky* corrects the census of 1800, the schedule of 1830, and the retrospect tables in the compendium of 1840 and in the censuses of 1850 and 1860, by increasing whites 2, and diminishing free colored 2.

The table of *Maryland* corrects the official census of 1820, the schedule of 1830, and the retrospect tables in the compendium of 1840 and in the censuses of 1850 and 1860, by diminishing whites 1, and increasing slaves 1.

The table of *New York* corrects the census of 1800 by increasing whites 2,515, free colored 43, slaves 290, and the aggregate 3,001; also the schedule of 1830, and the retrospect tables in the compendium of 1840 and in the censuses of 1850 and 1860, by increasing whites 1,692 free colored 43, slaves 560, and the aggregate 2,295.

The table of *North Carolina* corrects the census of 1820, and the retrospect tables in the compendium of 1840 and in the censuses of 1850

have occurred frequently in the most important portions of the several official censuses, examples of which appear in the notes to Table II.

A single result of these examinations into the earlier censuses has enough of curious and perhaps of substantial interest to be noted here. The State of Vermont was, in the publication of the first census, that of 1790, put down as numbering among its inhabitants sixteen slaves. In subsequent publications this number was, by a clerical or typographical error, changed to seventeen; but, with this accidental variation, the statement of the first census has passed unchallenged, and antiquarians have even taken pains to explain in what manner it was that this small number of slaves should have been found in a State otherwise through all its history a free State.

The re-examination of the original census-roll of Vermont at the census of 1790, for the purposes of this republication, brought to light what had never before been suspected—that these sixteen persons appeared upon the return of the assistant marshal as “free colored.” By a simple error of compilation, they were introduced into the column for slaves; and this error has been perpetuated through nearly the whole history of the Government until corrected in the accompanying tables.

Table of cities, towns, &c.—In Table III of the population volume, which contains the population of all recognized civil divisions less than counties, (cities, towns, townships, villages, boroughs, beats, wards of parishes, election districts, militia districts, &c.,) comparison with the results of 1850 and 1860 has been introduced as far as practicable. For this purpose the manuscript returns of the Seventh and Eighth Censuses have been carefully compared with the tables of cities, towns, villages, &c., in the published volumes. The latter have been found to be exceedingly defective and inaccurate. Several thousand civil divisions have been added to the list, which were entirely omitted from the publication of these censuses, although recognized on the returns of assistant marshals. Reference to the original manuscripts, for this purpose, elicited the additional fact that not only were the lists defective, but the figures, as published, were very inaccurate for the cities, towns, &c., actually appearing.

To take one class of errors in this exhibit, and to illustrate them from a single State: an extensive table appears in the population volume of 1860, which purports to give the population of the “cities, towns, &c.” of Ohio. Examination of this table and reference to original returns show that sometimes it is the population of the town which is given; sometimes the population of the township including the town; and sometimes the population of the township outside the town.* These variations occur continually through the list, and corrections to the number of many hundreds in that State alone have been rendered necessary in the present republication. The additions and corrections introduced in several other States have been almost as numerous.

These remarks are not made with a view to the disparagement of any person, but to show the necessity of such a republication, and to let it be understood that in all points in which the tables appended disagree with preceding publications, the present is the authoritative statement.

and 1860, by increasing free colored 100, and diminishing slaves 100; also corrects the schedule of 1830, by diminishing whites 100, increasing free colored 100, and diminishing slaves 100.

The table of *Tennessee* corrects the census of 1820, the schedule of 1830, and the retrospect tables in the compendium of 1840 and in the censuses of 1850 and 1860, by increasing free colored 10 and the aggregate 10.

The table of *Virginia* corrects the census of 1810, the schedule of 1830, and the retrospect tables in the compendium of 1840 and in the censuses of 1850 and 1860, by decreasing whites 20, slaves 2, and the aggregate 22; also corrects the census of 1820, the schedule of 1830, and the retrospect tables in the compendium of 1840 and in the censuses of 1850 and 1860, by increasing whites 11, and diminishing free colored 6 and slaves 5; also corrects the retrospect tables of the censuses of 1850 and 1860 by diminishing whites 2, free colored 6, slaves 5, and total 13.

* *E. g.*: Each of the townships of Ashtabula, Athens, and Conneaut contains a borough or village of the same name. In the list of cities, towns, &c., referred to, Ashtabula appears with a population of 1,418; Athens, with a population of 2,852; Conneaut with a population of 1,952. In the first case, however, it is the borough only of Ashtabula that is given; in the second case, the population of the township of Athens is put down, including the village of the same name; in the third case, what is reported as Conneaut is only so much of the township as lies outside the town of that name. The real facts in regard to these towns and townships were as follows:

Borough of Ashtabula.....	1,418
Outside the borough.....	1,322
<hr/> Township of Ashtabula.....	<hr/> 2,740
Village of Athens.....	1,341
Outside the village.....	1,511
<hr/> Township of Athens.....	<hr/> 2,852
Borough of Conneaut.....	964
Outside the borough.....	1,952
<hr/> Township of Conneaut.....	<hr/> 2,916

The list of civil divisions for the Ninth Census, now for the first time published, is as complete as it could be made by the most stringent instructions to marshals and assistants in regard to preserving all recognized denominations, and by an extensive correspondence with the executives of the several States. Wherever it fails to present any civil division of sufficient consequence to justify its preservation, or any mistake has been made in the classification of such civil division as town, township, borough, village, &c., it is for the want of necessary data at the Census Office, after all possible exertion had been put forth to secure complete lists. It has been a matter of surprise to find how deficient the records of many States of the Union are in respect to their own existing civil divisions, and particularly in regard to changes of boundary, of name, or of municipal character, within a comparatively recent period. In the case of some, notwithstanding the expressed willingness of the executive to afford such information, it has been impossible to secure a simple list of the existing townships of the State at the present time. Of course, in such a condition of things, it has been altogether out of the question to obtain an account of the *changes* occurring in past years.

It has been sought to accompany this comparative statement of population with such explanations as should account in every case for the disappearance of old and the appearance of new civil divisions within the same State or county, explaining all changes of name and accounting for the population thus lost or found. In some instances it has proved impossible to secure the information desired. In such cases the figures are given just as they are found in the different censuses, and it is left to local research to apply the key to changes which it has been impossible at this distance to explain.

The value of a correct publication of all the civil divisions of the country, large and small, cannot be overestimated. It is the feature of the census in which a greater number of citizens are interested than perhaps in any other, except the single page which exhibits the grand totals of population. Special pains, therefore, have been taken with this table. The more usual distinction, namely, that of sex, has been omitted, and the population has been distinguished instead as native or foreign, white or colored. The reason for this has been that, as reasonable limits of space would not suffice for the publication of all the facts, a selection was made of those which are most important to be stated.

It will at once be seen that, with a given population in any town or city, the respective numbers of males and females may be predicated with a very close approach to accuracy. The sexes will throughout be evenly balanced, or one or the other will have a very slight preponderance. Natural laws maintain a substantial equality. But with such a population it is impossible to predicate anything whatever in regard to the proportions of native and foreign, of white and colored. The foreign element may be one-half or three-fourths, or it may be but the tenth of one per cent. The black population may be largely in preponderance, or there may not be a single representative of that color found. Hence, these two classes of facts have been taken as the most important to be preserved. The proportion of the sexes will be shown in connection with the tables of age.

ADMISSION OF ERRORS AND DEFICIENCIES.

The statistics of the census are not of uniform value. The census law of 1850 was a purely tentative measure. Some of the inquiries which it proposed are such as the country is not even yet ripe for. In respect to others, no adequate machinery is provided; and the investigations from that cause fail to accomplish worthy results. In respect to others, still, the compensation provided is so inadequate that, although the statistics are easily accessible, and the machinery for their collection is well adapted to the purpose, the motive force is wanting to secure the thorough performance of the duty. From these three causes it follows that the agents of the census are charged by law with the collection of statistics upon certain subjects where a partial failure, more or less considerable, is inevitable. Yet these statistics the authorities of the census are presumably bound to publish, except where the results are so flagrantly wrong as to be calculated to deceive rather than to instruct.

In such a state of things it would seem to be the duty of those charged with the publication of these statistics to indicate in respect to each class the degree to which the figures may be relied upon, and, as nearly as may be practicable, the proportion of omission or error. It is undoubtedly true that many will by such a course become advised of these deficiencies who never would have discovered them. It is probably true also that many persons will, when candidly advised of the necessary limitations of such statistics, proceed to the conclusion that they are all worthless, and thus reject the whole. It is unquestionable, therefore, that the results of the census would obtain more credit if put forth without any admissions or exceptions; but I have not deemed such a course fair to the public. If, in the progress of compilation or correspondence, defects more or less numerous and important have been detected, which it is yet impracticable to remedy, the country has as much right to that information as to the actual figures of the census.

COMPENDIUM OF THE NINTH CENSUS.

It is recommended that a compendium of the Census in octavo form be authorized for wide popular distribution. With a view to the publication of such a volume, which, though it should contain little original matter, or none, will yet require much care and labor in its preparation, I have already forwarded an estimate to be embodied in the estimates of the Department for the fiscal year 1872-'73, for the salaries of a chief clerk and six clerks of class four, for three months from the 1st of July next, with a small allowance for the miscellaneous expenses of the office during the time.

The whole of this appropriation may not be required, but it seems best that the service should be fully provided for, if a compendium is to be authorized. Work upon it can be commenced at once, more than three-fourths of the tables which are to furnish the material for the compendium being already prepared. The remainder may be delayed a few months, but enough will be on hand constantly to allow of uninterrupted progress being made with the selections, the condensations, the groupings, the calculations of percentage, &c., necessary to present the results of the census most accessibly and most instructively for popular use.

THE CENSUS OFFICE.

The Census Office was organized on the 7th of February, 1870, by the appointment of a Superintendent. By making special arrangements with the marshals of the larger States, it was found practicable by the 1st of July to have a considerable force of clerks engaged upon the work of compiling the returns according to the forms adopted for tabulation, both those hitherto used and those which were introduced for the first time at the present census. The advantage of this early organization was twofold. It enabled the Superintendent to call the attention of marshals and assistant marshals to mistakes which were being committed in the course of the enumeration, in season for such errors to be corrected upon the greater portion of the returns; and it also gave the office a large number of trained clerks against the time when the main body of the returns should be received.

The clerical force of the Census Office has been raised, in accordance with the provisions of law, by a system of examinations. Examinations began upon the 18th of February, 1870, and have been continued, with longer or shorter intervals, according to the necessities of the office, to the present time. Seven hundred and nineteen persons have presented themselves before the board for examination. Of this number, 401 passed upon their first examination. The marking being upon a scale of 1,000, 1 passed above 950, 5 between 900 and 950, 17 between 800 and 900, 42 between 700 and 800, 52 between 600 and 700, 102 between 500 and 600, 98 between 450 and 500, 84 between 400 and 450, 103 between 300 and 400, 89 between 200 and 300, 74 between 100 and 200, and 52 under 100.

By the rule adopted at the commencement of the examinations, any applicant attaining a total of 450 marks was promised an appointment. No one could be appointed to a first-class clerkship who failed to reach 400; between 400 and 450, appointment might be given or withheld, at discretion.

Of those who failed upon first examination, 64 were allowed another examination upon the presentation of evidence which established a presumption that the first examination had not, generally from reasons of physical disability at the time, afforded a fair opportunity. Of this number, 37 succeeded upon another trial. Of these, one only passed above 700; three between 600 and 700; twelve between 500 and 600; twelve between 450 and 500; nine between 400 and 450; nine between 300 and 400; seven between 200 and 300; three between 100 and 200, and eight under 100. The fact that the proportion of those who passed upon the second trial is almost exactly the same as of those who passed upon the first, and that at a second examination nearly all who succeeded did so with a narrow margin, is the strongest confirmation that could be afforded to the justice and accuracy of the test applied.

These examinations were conducted by the use of sealed papers. Each person examined was furnished with a written list of the questions and problems proposed, and was allowed six hours in which to perform the work. The papers were examined by the board without a knowledge of the applicant's name, and it was only after his standing had been determined that the envelope containing his name was broken.

The examinations were mainly in the practical use of figures, being designed specially to test the fitness of the candidate for the work of the Census Office. New series of questions were frequently introduced, in order to secure the integrity of the examination; but it was sought at each change to make the new series an exact equivalent of the former one. Each part was examined and marked by itself, so that however gross the error which the candidate might commit at one point, it should not prejudice whatever merit might be found in others. It will be a matter of surprise to many to see such a wide range, as the result of these examinations, in the marks of the individual applicants. The differences indicated in the arithmetical aptitude and ability of applicants are not, however, greater than those which exist between men actually in office under the Government.

Unquestionably one reason why so much prejudice is excited by a rigid system of examinations, and why so many inefficient persons are, in the absence of such a system, pressed upon the public service, is that these differ

ences are not appreciated. No one probably would question, for a moment, that differences exist among men of ordinary intelligence in respect to clerical aptitude; but it is too commonly assumed that they are no greater than the differences which exist in respect to strength, or weight, or stature. No one probably would doubt that one clerk might be better than another, just as one clerk will be heavier than another, by ten, twenty, or even, in a few extreme cases, thirty per cent.; but that such differences go really to the extent of making one good clerk more valuable than two, or three, or four merely moderate clerks, while no consideration whatever can make it worth while for the Government to give desk-room to a really poor clerk: this is not generally understood.

These comments upon the examinations of the Census Office have been made strictly with reference to the qualifications of the applicants for the work of that office. It has been fully recognized that many have been rejected who might have made excellent corresponding clerks, or have succeeded admirably in the conduct of general business. The qualifications which the Census Office demands are the average qualifications of a good bank clerk or paymaster's clerk; and with a view to such duties, the differences in ability which have been developed by this series of examinations, represent actually the differences between men as they are found in the community, and as they apply for public office.

ACKNOWLEDGMENTS.

The clerical force of this office deserve the warmest commendation for the high standard of industry and efficiency which their own zeal and fidelity, rather than administrative measures on the part of the Superintendent, have maintained. Especially to Colonel G. D. Harrington, chief clerk, and to the following gentlemen, chiefs and assistant chiefs of division, are my thanks due: S. W. Stocking, C. S. Mixter, C. W. Seaton, D. S. Keller, W. J. Warren, Henry Stone, S. A. Galpin, J. M. Grassie, A. W. Paine, J. Q. Adams, J. W. Bradshaw, Lockwood R. May, and J. P. Scott. These gentlemen were chosen for the positions to which they were assigned without the slightest reference to any other consideration than their personal fitness for the work; and the results have fully justified their selection. They have not allowed themselves to measure their service by the usual requirements of public office, or by the demands made upon them, but have served the Government unsparingly to the utmost of their strength. They deserve, therefore, to have their names connected with this record of the Ninth Census.

Acknowledgment is due to the Honorable the Postmaster General, and to the Hon. J. M. Edmunds, postmaster of the city of Washington, for exceptional facilities in the prompt and safe transmission of the vast bodies of mail-matter which this office has had occasion to send and receive.

No expressions which I could use would exaggerate the assistance which the Census has derived from the manner in which its numerous and most difficult demands upon the Government Printing Office have been met. To Hon. A. M. Clapp, Congressional Printer, and to his zealous and capable assistants in every department of the great public work under his charge, this office is indebted for services far beyond the requirements of law or usage.

To you, sir, and to your predecessor in the administration of the Department, the Census Office is under the deepest obligations for the enlightened interest invariably manifested in its success, and for the kind, liberal, and courageous support given to every proposed improvement or reform.

I have the honor to be, sir, very respectfully, your obedient servant,

FRANCIS A. WALKER,
Superintendent.

DEPARTMENT OF THE INTERIOR,
Census Office, November 21, 1871.

NOTE.—Subsequently to the date of this report, it was discovered at the Census Office, that a portion of the population of Linn County, Iowa, to the number of 2,228, although duly enumerated, had, through oversight, failed to be returned by the United States marshal. It was also ascertained that one sheet of schedules from Luzerne County, Pennsylvania, had been mislaid, and the inhabitants returned thereon to the number of 160 had been omitted from the count. In reprinting the report, for the purposes of the present publication, the changes involved in the correction of these two errors have been carried through the tables and the computations in the text.